

# Induction Shrink Fit Cast Iron

United Induction Heating Machine Limited

We are experienced in Induction Heating, induction heating machine, Induction Heating equipment. They are widely used in induction heating service, induction heat treatment, induction brazing, induction hardening, induction welding, induction forging, induction quenching, induction soldering, induction melting and induction surface treatment applications  
<http://www.uihm.com>

**Shrink Fit Cast Iron Objective** To use induction to prepare cast iron assemblies for shrink fit assembly

**Material** Customer supplied cast iron rocker arms of varying sizes

**Temperature** 450 °F (232 °C)

**Process Time** 20 seconds

**Frequency** 48 kHz

**Equipment** Power of 25kW, 50-80 kHz solid state induction heating system, equipped with a remote heat station containing one 1.0μF capacitor shrink fitting cast iron. An induction heating coil designed and developed specifically for this application.

**Process** A four-turn helical coil heats the ring at one end of the assembly. The coil is designed to concentrate the field towards the center of the assembly where the thermal mass is greatest.

Across the heated ring, the coil presents a lighter field. After heating, a pin is placed within the ring and the assembly is water quenched.

The heat time varies from part to part but is less than 20 seconds.

**Results/Benefits** Induction heating satisfies the needs of this process for:

- rapid part heating
- flexibility for parts of differing geometries
- individual, series part heating, suitable for automation
- a clean source of heat
- even heat distribution



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